

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	1	"3910701".pn. and (capacitor or capacitance)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/09/28 12:18
L2	169	("2706927"   "3439175"   "3679314"   "3697179"   "3734631"   "3744919").PN. OR ("3910701").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2006/09/28 12:18
L3	0	2 and (led) same (capacitor or capacitance) same (reverse near bias)	US-PGPUB; USPAT; USOCR	OR	ON	2006/09/28 12:20
L4	64148	"356".clas.	US-PGPUB; USPAT; USOCR	OR	ON	2006/09/28 12:20
L5	6	"356".clas. and led same (reverse near bias)	US-PGPUB; USPAT; USOCR	OR	ON	2006/09/28 12:22
L6	2	"356".clas. and led same (reverse near bias) same (capacitor or capacitance)	US-PGPUB; USPAT; USOCR	OR	ON	2006/09/28 12:21
L7	8220	"356".clas. and led	US-PGPUB; USPAT; USOCR	OR	ON	2006/09/28 12:22
L8	4	"356".clas. and led near10 (reverse near bias)	US-PGPUB; USPAT; USOCR	OR	ON	2006/09/28 12:22
L9	16	"324".clas. and (led or light near emitting) near10 (reverse near bias)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/09/28 12:27
L10	17	"250".clas. and (led or light near emitting) near10 (reverse near bias)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/09/28 13:28
L11	1384	356/39.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/09/28 13:29

## EAST Search History

L12	0	356/39.ccls. and led near10 (reverse near bias)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/09/28 13:30
L13	0	356/213.ccls. and led near10 (reverse near bias)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/09/28 13:30
L14	1	356/213.ccls. and (led or light near emitting) and (reverse near bias)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/09/28 13:31
L15	1	250/227.21.ccls. and led same (reverse near bias)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/09/28 13:32
L16	3	250/227.21.ccls. and led and (reverse near bias)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/09/28 13:32
L17	114	356/612.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/09/28 13:33
L18	0	356/612.ccls. and (led or light near emitting near diode) same (reverse near bias)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/09/28 13:34
L19	0	356/612.ccls. and (led or light near emitting near diode) and (reverse near bias)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/09/28 13:34
L20	23	356/612.ccls. and (led or light near emitting near diode)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/09/28 13:34
L21	0	356/612.ccls. and (led or light near emitting near diode) and reverse near bias	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/09/28 13:36

## EAST Search History

L22	1380	356/432.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/09/28 13:36
L23	870	356/432.ccls.	US-PGPUB; USPAT	OR	ON	2006/09/28 13:36
L24	1	356/432.ccls. and led same (reverse near bias)	US-PGPUB; USPAT	OR	ON	2006/09/28 13:37
L25	154	356/213.ccls.	US-PGPUB; USPAT	OR	ON	2006/09/28 13:37
L26	0	356/213.ccls. and led same (reverse near bias)	US-PGPUB; USPAT	OR	ON	2006/09/28 13:38
L27	0	356/213.ccls. and (light near emitting) same (reverse near bias)	US-PGPUB; USPAT	OR	ON	2006/09/28 13:38
S1	2	"5631757".pn.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/09/26 15:13
S2	2	"6701091".pn.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/09/26 15:14
S3	2	"6559788".pn.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/09/26 15:16
S4	422	422/82.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/09/28 10:10
S5	316	422/82.ccls.	USPAT	OR	ON	2006/09/26 15:31
S6	245	surface near reflect\$5 near sensor	USPAT	OR	ON	2006/09/26 15:32
S7	0	surface near reflect\$5 near sensor near10 led	USPAT	OR	ON	2006/09/26 15:32
S8	6	surface near reflect\$5 near sensor same (LED or light near emitting near diode)	USPAT	OR	ON	2006/09/26 15:42
S9	4	("5408092" "5149962" "5177352" "4848901").pn.	USPAT	OR	ON	2006/09/26 15:42

## EAST Search History

S10	25	("3621390"   "3679974"   "3952265"   "4281253"   "4317232"   "4356448"   "4516073"   "4529875"   "4564756"   "4578639"   "4608535"   "4773074"   "4799797"   "4891579"   "4897542"   "4916387"   "4948960"   "4989051"   "5051577"   "5149692"   "5290103").PN. OR ("5408092"). URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2006/09/26 15:43
S11	4	("4848901"   "5149962"   "5177352"   "5408092").PN. OR ("7008795").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2006/09/26 15:51
S12	1	(S10 or S11) and charg\$3 near6 capacit\$5	US-PGPUB; USPAT; USOCR	OR	ON	2006/09/26 15:51
S13	4	(S10 or S11) and pin	US-PGPUB; USPAT; USOCR	OR	ON	2006/09/26 15:52
S14	2	(S10 or S11) and led near wavelength	US-PGPUB; USPAT; USOCR	OR	ON	2006/09/26 15:52
S15	4	(S10 or S11) and led near7 wavelength	US-PGPUB; USPAT; USOCR	OR	ON	2006/09/26 15:55
S16	927	(set or multi\$3 or two or plural\$3) near6 (led) near6 (wave\$1length)	US-PGPUB; USPAT; USOCR	OR	ON	2006/09/26 15:55
S17	441	(set or multi\$3 or two or plural\$3) near6 (led) near6 (wave\$1length)	USPAT	OR	ON	2006/09/26 15:56
S18	138	(set or multi\$3 or two or plural\$3) near6 (led) near6 differ\$4 near6 (wave\$1length)	USPAT	OR	ON	2006/09/26 16:00
S19	27	surface adj reflectance near sens\$3	USPAT	OR	ON	2006/09/26 16:01
S20	1	surface adj reflectance near sens\$3 and Led	USPAT	OR	ON	2006/09/26 16:01
S21	1	surface adj reflectance near sens\$3 and led	USPAT	OR	ON	2006/09/26 16:01
S22	0	S19 and I/O	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/09/26 16:06

## EAST Search History

S23	8	(US-5631757-\$ or US-6701091-\$ or US-6559788-\$ or US-5408092-\$ or US-5177352-\$ or US-5149962-\$ or US-4848901-\$ or US-7008795-\$).did.	USPAT	OR	ON	2006/09/26 16:06
S24	1	S23 and I/O	USPAT	OR	ON	2006/09/26 16:06
S25	128	I/O near pin same (led or light near emitting near diode)	USPAT	OR	ON	2006/09/26 16:12
S26	3	I/O near pin same (led or light near emitting near diode) and (different or corresponding or individual or specific) near6 wavelength	USPAT	OR	ON	2006/09/26 16:10
S27	89	I/O near pin same (led or light near emitting near diode) and capacit\$5	USPAT	OR	ON	2006/09/26 16:12
S28	29	I/O near pin same (led or light near emitting near diode) and capacitance	USPAT	OR	ON	2006/09/26 16:26
S29	114	(two or multi\$3 or plural\$3 or set or group or bunch) near6 (led or light near emitting near diode) and capacitance and I/O near pin	US-PGPUB; USPAT; JPO	OR	ON	2006/09/26 16:29
S30	0	(two or multi\$3 or plural\$3 or set or group or bunch) near6 (led or light near emitting near diode) and capacitance and (\$controller) near (forward or reverse) near bias	US-PGPUB; USPAT; JPO	OR	ON	2006/09/26 16:28
S31	0	(two or multi\$3 or plural\$3 or set or group or bunch) near6 (led or light near emitting near diode) and capacitance and (\$controller) near10 (forward or reverse) near bias	US-PGPUB; USPAT; JPO	OR	ON	2006/09/26 16:28
S32	1566	(two or multi\$3 or plural\$3 or set or group or bunch) near6 (led or light near emitting near diode) and capacitance and (\$controller)	US-PGPUB; USPAT; JPO	OR	ON	2006/09/26 16:28
S33	58	(two or multi\$3 or plural\$3 or set or group or bunch) near6 (led or light near emitting near diode) and capacitance and I/O near pin same \$controller	US-PGPUB; USPAT; JPO	OR	ON	2006/09/26 16:31
S34	1740	surface near reflect\$4 near6 sens\$3 and (led or light near emitting near diode)	US-PGPUB; USPAT; JPO	OR	ON	2006/09/26 16:45

## EAST Search History

S35	1	"5408092".pn. and led	US-PGPUB; USPAT; JPO	OR	ON	2006/09/26 16:33
S36	25	("3621390"   "3679974"   "3952265"   "4281253"   "4317232"   "4356448"   "4516073"   "4529875"   "4564756"   "4578639"   "4608535"   "4773074"   "4799797"   "4891579"   "4897542"   "4916387"   "4948960"   "4989051"   "5051577"   "5149692"   "5290103").PN. OR ("5408092"). URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2006/09/26 16:36
S37	8	S36 and (multi\$3 or plural\$3 or two or more) near10 (led or light near emitting near diode)	US-PGPUB; USPAT; USOCR	OR	ON	2006/09/26 16:43
S38	3	(S36 or S37) and (timer or timing)	US-PGPUB; USPAT; USOCR	OR	ON	2006/09/26 16:44
S39	264	surface near reflect\$4 near sens\$3 and (led or light near emitting near diode)	US-PGPUB; USPAT; JPO	OR	ON	2006/09/26 16:45
S40	23	surface near reflect\$4 near sens\$3 and (led or light near emitting near diode) and micro\$1controller	US-PGPUB; USPAT; JPO	OR	ON	2006/09/26 16:56
S41	2	S39 and parasitic near capacit\$5	US-PGPUB; USPAT; JPO	OR	ON	2006/09/26 16:57
S42	1708	422/82.05.ccls.	US-PGPUB; USPAT; JPO	OR	ON	2006/09/26 16:57
S43	14799	422/82.05.ccls. (multi\$3 or plural\$3 or two) near6 (led or light near emitting near diode) and \$controller	US-PGPUB; USPAT; JPO	OR	ON	2006/09/26 16:58
S44	33	422/82.05.ccls. and (multi\$3 or plural\$3 or two) near6 (led or light near emitting near diode) and \$controller	US-PGPUB; USPAT; JPO	OR	ON	2006/09/26 17:05
S45	13	422/82.05.ccls. and (multi\$3 or plural\$3 or two) near6 (led or light near emitting near diode) and micro\$1controller	US-PGPUB; USPAT; JPO	OR	ON	2006/09/26 17:36
S46	123	(led or light near emitting near diode) near array and (control\$4 or driving) near10 capacitance	US-PGPUB; USPAT; JPO	OR	ON	2006/09/26 17:39

## EAST Search History

S47	14	((multi\$3 or plural\$3 or two) near (optical or reflect\$5) near sens\$3).ti.	US-PGPUB; USPAT; JPO	OR	ON	2006/09/27 09:44
S48	247	((multi\$3 or plural\$3 or two) near6 (optic\$3 or reflect\$5) near6 sens\$3).ti.	US-PGPUB; USPAT; JPO	OR	ON	2006/09/27 09:46
S49	9	(multi\$1way) near (led or light near emitting near diode)	US-PGPUB; USPAT; JPO	OR	ON	2006/09/27 09:55
S50	1	"5408092".pn. and \$control\$4	US-PGPUB; USPAT; JPO	OR	ON	2006/09/27 09:49
S51	0	"5408092".pn. and capacit\$5	US-PGPUB; USPAT; JPO	OR	ON	2006/09/27 10:16
S52	0	"5408092".pn. and wave\$1length	US-PGPUB; USPAT; JPO	OR	ON	2006/09/27 10:42
S53	0	"5408092".pn. and wavelength	US-PGPUB; USPAT; JPO	OR	ON	2006/09/27 10:43
S54	1	"7008795".pn. and capacitance	US-PGPUB; USPAT; JPO	OR	ON	2006/09/27 10:49
S55	8604	junction adj capacitance	US-PGPUB; USPAT; JPO	OR	ON	2006/09/27 10:49
S56	18	junction adj capacitance near led	US-PGPUB; USPAT; JPO	OR	ON	2006/09/27 10:49
S57	38	junction adj capacitance near7 led	US-PGPUB; USPAT; JPO	OR	ON	2006/09/27 11:01
S58	21	junction adj capacitance near7 led same tim\$3	US-PGPUB; USPAT; JPO	OR	ON	2006/09/27 11:01
S59	20	(US-20040247484-\$).did. or (US-6701091-\$ or US-5631757-\$ or US-6559788-\$ or US-5149962-\$ or US-5177352-\$ or US-4356448-\$ or US-7008795-\$ or US-5408092-\$ or US-4558315-\$ or US-4848901-\$ or US-6239446-\$ or US-6592822-\$ or US-6180409-\$ or US-5073029-\$ or US-5371353-\$ or US-5787064-\$ or US-4622477-\$ or US-4571506-\$).did. or (JP-2005265849-\$).did.	US-PGPUB; USPAT; JPO	OR	ON	2006/09/27 11:08

## EAST Search History

S60	9	S59 and wavelength near6 (different or multi\$3)	US-PGPUB; USPAT; JPO	OR	ON	2006/09/27 11:22
S61	2	JP-2005265849-\$.did.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/09/27 11:25
S62	41640	G01J 3/28.icls.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/09/27 11:26
S63	41627	G01J 3/28.icls. and led	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/09/27 11:26
S64	41627	G01J 3/28.icls. and (bi\$1direction\$3) near led	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/09/27 11:27
S65	41627	G01J 3/28.ipc. and (bi\$1direction\$3) near led	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/09/27 11:27
S66	0	"G01J 3/28".ipc. and (bi\$1direction\$3) near led	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/09/27 11:27
S67	0	G01J3/28.ipc. and (bi\$1direction\$3) near led	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/09/27 11:27
S68	0	G01J03/28.ipc. and (bi\$1direction\$3) near led	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/09/27 11:27
S69	41627	G01J 03/28.ipc. and (bi\$1direction\$3) near led	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/09/27 11:32
S70	4	"3910701".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/09/27 11:34
S71	61	(bi\$directional) near led	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/09/27 11:37



## EAST Search History

S72	1	(bi\$directional) near led and spectro\$1photometer	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/09/27 11:36
S73	11468	(led) near7 (emit\$4 or input\$3) near7 (detect\$3 or sens\$3)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/09/27 11:39
S74	296	(led) near (emit\$4 or input\$3) near (detect\$3 or sens\$3)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/09/27 11:40
S75	261	(led) near (emit\$4 or input\$3) near (detect\$3 or sens\$3)	US-PGPUB; USPAT	OR	ON	2006/09/27 11:40
S76	162	(led) near (emit\$4 or input\$3) near (detect\$3 or sens\$3)	USPAT	OR	ON	2006/09/27 11:41
S77	70	led same (forward and reverse) near bias	USPAT	OR	ON	2006/09/27 11:45
S78	8	73/335.04.ccls. and (led or light near diode)	USPAT	OR	ON	2006/09/27 11:46
S79	23	(led) same (narrow\$1band near emit\$4 or high\$1pass near sens\$3)	USPAT	OR	ON	2006/09/27 11:59
S80	1607499	led near6 emit\$3 near\$6 sens\$3	USPAT	OR	ON	2006/09/27 11:59
S81	102	(led or light near emitting near diode) near (tunable or tuned or tuning)	USPAT	OR	ON	2006/09/27 12:30
S82	9	chemo\$1chrom\$3 near sens\$3	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/09/27 12:32
S83	3	chemo\$1chrom\$3 near sens\$3 and led	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/09/27 12:34
S84	4	(measur\$3) near6 discharg\$3 near6 time near10 capacitance same led	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/09/27 12:35
S85	388	led near10 capacit\$5 near discharg\$3	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/09/27 12:36
S86	6	led near10 measur\$3 near5 capacit\$5 near discharg\$3	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/09/27 12:36
S87	6	("5804997"   "6122678"   "6344641"   "6396614"   "6414776"   "6664744").PN. OR ("6870148").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2006/09/27 15:39

## EAST Search History

S88	1	"5268635".pn.	US-PGPUB; USPAT; USOCR	OR	ON	2006/09/27 15:39
S89	885	250/214	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/09/28 10:10
S90	0	50/214R.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/09/28 10:10
S91	3871	250/214R.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/09/28 10:10
S92	2253	250/214R.ccls.	USPAT	OR	ON	2006/09/28 10:10
S93	186	250/214R.ccls. and led	USPAT	OR	ON	2006/09/28 10:15
S94	3	250/214R.ccls. and led near10 reverse near bias	USPAT	OR	ON	2006/09/28 10:11
S95	3	250/214R.ccls. and led near10 (reverse near bias)	USPAT	OR	ON	2006/09/28 10:11
S96	3	250/214R.ccls. and led near10 (reverse near bias)	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/09/28 10:11
S97	598	250/214LA.ccls.	USPAT	OR	ON	2006/09/28 10:15
S98	25	250/214LA.ccls. and led	USPAT	OR	ON	2006/09/28 10:15
S99	0	250/214LA.ccls. and led near10 (reverse near bias)	USPAT	OR	ON	2006/09/28 10:16
S10 0	1	250/214LA.ccls. and led same(reverse near bias)	USPAT	OR	ON	2006/09/28 10:16
S10 1	38	("3479517"   "3511925"   "3524986"   "3525024"   "3577018"   "3696389"   "3697762").PN. OR ("3818451"). URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2006/09/28 10:20
S10 2	9	S98 and (capacitor or capacitance)	US-PGPUB; USPAT; USOCR	OR	ON	2006/09/28 10:28
S10 3	14	S101 and led	US-PGPUB; USPAT; USOCR	OR	ON	2006/09/28 10:33

## EAST Search History

S10 4	9	S101 and led and (capacitor or capacitance)	US-PGPUB; USPAT; USOCR	OR	ON	2006/09/28 10:33
S10 5	509	"362".clas. and led same (capacitor or capacitance)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/09/28 10:48
S10 6	7	"362".clas. and led same (capacitor or capacitance) same (reverse near bias)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/09/28 12:18